

Enlarging The Granary of North Carolina

A Description of the Great Drainage Project In Hyde County

(By JOHN P. BROSS.)

(By JOHN P. BROSS.)

Most of the readers of *The News and Observer* know that some sort of drainage work is going on here, but I am constrained to believe that very few are aware that the greatest reclamation project east of the Mississippi is under way, and rapidly nearing completion, down here in Hyde county.

This project is called "The Mattamuskeet Drainage Project," and involves the drainage of one hundred and twenty thousand acres of land, said to be as fertile as the Nile valley.

I have never seen the Nile valley, but I have seen some of the famous rich lands in the South and Southwest, and am prepared to say that the lands now under cultivation around the shores of Mattamuskeet Lake are the richest I have ever seen, not excepting the famous Brazos Bottoms of Texas.

As I am writing these lines I have only to look through my window to see lands that have produced this year over fifty bushels of corn and over eighty bushels of oats per acre, and that too without commercial fertilizer. These lands have been in cultivation for over one hundred and twenty-five years and are producing better crops today than ever before.

Fifty thousand acres of the land included in the drainage district are now under the waters of Mattamuskeet Lake. The United States Department of Agriculture has made a soil survey of the bed of the lake, and has reported that all the land in the bed of the lake is good agricultural land, and that the greater part of it is very rich some of it even more fertile than the land now in cultivation.

Much of the land included in the district is now in swamps and savannas. Some of this land has been cleared, and, in dry years, produces enormous crops of corn, soja beans, etc.

I think it would be safe for me to say that when the project is completed it will add to the arable land of Hyde county an area of upward of seventy-five thousand acres of land that will produce annually an average of thirty bushels of corn per acre.

This will not be the only beneficent result of the project. Much of the land now under cultivation is flooded by excessive rainfall, and it frequently happens that crops are made only on the narrow ridge around the lake. When the drainage system is completed this source of failure will be eliminated and these lands will produce great crops every year.

When these facts are considered you will comprehend the magnitude of the stakes for which the big drainage game is being played by the people of Hyde county.

Mattamuskeet Lake.

The best term to describe this lake is "a sheet of water," for, while it covers an area of fifty thousand acres, it is not more than four feet deep in any place. Old people say that it was much deeper years ago, but ditches have been opened into it for the purpose of draining the surrounding land, and it has been filled up by the silt brought in by these ditches. An Indian legend accounts for the origin of the lake by saying that it was burned out of the peaty earth, and that it burned for "thirteen moons."

Mattamuskeet Lake is "a thing of beauty." If you have ever seen it you will agree with me. I have lived here on its shores for nearly two years, and have seen it in all its various moods; on a calm, sunny summer day, when it lay like a great mirror with a frame of beautiful green, holding in its bosom the image of the cloud-flecked, azure sky; when it was caressed by the gentle breezes from the South, and the wavelets played with sun-sparkles upon its smiling face; when storm clouds frowned over it and its waters were piled in huge heaps by the fury of the winds; but under whatever circumstances I have seen it, Mattamuskeet is a thing of beauty.

But Mattamuskeet is not "a joy forever." If it were, great steam dredges would not be tearing ugly gashes across its placid surface. Not only does it hold under its smiling face fifty thousand acres of the richest land in America, but thousands of other rich acres around it can not be cultivated at all, and many other acres are despoiled of their crops frequently, because it is here.

For years the people around the lake have thought, dreamed and longed for the drainage of their lands. They can tell you of many years in which the fruit of their toil has been destroyed when a bountiful harvest was almost in sight, by the rainwater from the higher lands to the northwest of them coming down upon the fields and being held there by a full

lake. They can tell of the many promising young men who have been driven from their country to other fields by the discouragement of having the fruits of their year of toil taken from them in a few days by the flooding of their well-tilled fields. They love Mattamuskeet for its beauty, but they hate it for the many fortunes it has taken from them, and for the many good citizens it has driven from their community.

The Dream of A "Yankee."

When a thing is thought about, dreamed of and longed for, it is to be expected that many plans will be evolved for its accomplishment. This has been true with reference to the drainage of the rich Mattamuskeet lands. Some years before the Civil War an attempt was made at drainage by the cutting of the Lake Landing canal from the southeastern corner of the lake to Wyeosock bay. This attempt resulted in some little success by lowering the water level in the lake. But the peculiar situation of this section renders any ordinary method of drainage unsuccessful. I have already made mention of the water that flows down from the higher lands to the northwest in seasons of excessive rainfall; this, the back pressure from high tides in Albemarle Sound, through Alligator river on the north, and the very slight elevation of the land above sea level, renders drainage by gravity out of the question. Some plan had to be devised that would not only take the rainfall off the land to be drained, but protect it against the water from the outside.

Sometime after the war there came to this county an old man by the name of Knickerbocker. I don't know where he came from, somewhere up North I believe, and because of this he was called a "Yankee." This old man was some sort of a genius. He was a magician with machinery, I am told, and was an engineer, by instinct if not by training. He spent much time in thought upon the great problem that was uppermost in the minds of the people here. I have been told that he was the first man to advance the theory that the country could be drained by pumping out the waters of the lake. Much sport was made of "Old Knick's dream" by some of the people, but others believed in the feasibility of his idea. Nothing was done, however, until about eight years ago. Along about that time there came a succession of very wet years and these rich lands hardly yielded "seed for the sower and bread for the eater." At this time an appeal was made to the Department of Agriculture at Washington for help to solve the drainage problem. In answer to this appeal the department sent a drainage expert to Hyde county to look into the matter. After a thorough canvass of the situation this expert recommended "Old Knick's Dream" as the only practical solution of the difficulty.

An undertaking of this magnitude required more money than the people in the district felt that they could raise and the situation was beginning to appear hopeless, when somebody thought of the lake bed. A soil survey was made of the bed of the lake by experts from the Department of Agriculture, and it was discovered that all the land covered by the lake was very rich, and would pay for the drainage work many times over. The lake was at that time the property of the State Board of Education. Drainage laws were passed by the Legislature, and plans were being formed for the launching of this great enterprise when the Board of Education gave an option on the lake bed to some North Carolina people, and the second "Yankee" steps into my story. His name is D. N. Graves, and he is from Boston.

"And It Came To Pass."

When I was a child we used to play a game with the old family Bible. One youngster would get the old book and hold it closed, the others would make a "wish," then the book would be opened at random, and if the words "And it came to pass" were found at the place where the book was opened it was an omen that the wish would be realized.

I don't know that "Old Nick" ever tried this method of prophecy on his dream, but I do know that it is "coming to pass." Things have been happening ever since this man Graves appeared upon the scene down here in Hyde.

He formed the Southern Land Reclamation Company, and when the Drainage District was legally completed, this company purchased the lake bed from the Board of Education. This company is the leading factor in this great work, and Mr. Graves appears to be the great force in the company. The principal offices of

the company are at Swan Quarter, the county-seat of Hyde county.

If one half of this company's ambitions concerning the lake bed are realized (and I believe they will all be realized) this lake bed will become one of the most prosperous and advanced farming communities in the South.

The development of this lake bed is not a fad with the people who own it. Not the plaything of some idle millionaire, but a business proposition out of which these business men expect to make a good profit on the money invested. While these men are busy making money for themselves, I like to think of the good that must result from their efforts to make money. I like to think of the vast stores of foodstuffs which will be added to the annual production of the State, of the good farms and comfortable homes that will be made available, the thriving churches and schools that must spring up on lands that are now given over to the mosquitoes and frogs, and I like to think of men making their money by adding something to the sum total of the world's good things. These men are not philanthropists, but they are making money the way I like to see men make it, and they deserve a word of praise for this.

They are doing good in another way also. All along the coast of North Carolina, South Carolina and Georgia there are millions of acres of swamp lands, lands that would produce great crops. Most of these lands could be drained by gravity, by simply cutting ditches and letting the water run off. It seems to me that the courage of the people who are undertaking and bringing to a successful conclusion this difficult project would inspire the people of the whole coast country to, at least, put their lands that may be drained without the difficulty and expense of pumping, under drainage.

The Mattamuskeet Plan.

We have mentioned the peculiar difficulties in the way of draining this country by gravity. It is slightly above the level of the sea and a combination of heavy rainfall with high tides would render ineffective any gravity system of drainage. From the northwest it is flooded by water from higher lands, and on the north by waters from the Alligator river. If it is drained at all it must be protected against the waters from these sources. Here is the way these difficulties are being overcome:

To protect the district against the water from the outside a boundary canal is being cut. This canal is sixteen feet wide; its depth varies according to the elevation of the land it passes through. This canal surrounds the entire district with the exception of some short spaces where there is a ridge and no protection is needed. The dirt from this canal is piled on the outside bank of the canal to form a dike against the pressure of outside water.

There are two main canals, the "East Main" and the "West Main." These canals begin at the boundary canal, one near the northeast, and the other near the northwest corners of the district and converge at a point about midway of the southern shore of the lake.

From the main canals lateral canals are cut north and south into the boundary canal. These lateral canals are about one and one-half miles apart. Into these canals the farmers will cut the ditches to drain their land.

Where the main canals converge there is a great basin, and the water from all over the district will flow through the canals to this basin. By the side of the basin is the great pumping plant to lift the water and send it through the outfall canal to Pamlico Sound, seven and one-half miles away. This outfall canal is seventy feet wide and about fourteen feet deep.

The pumping plant is said to be the greatest reclamation pumping plant in the world. It is composed of eight 60-inch centrifugal pumps, with a combined capacity of 2,600 cubic feet of water per second. These pumps are set on a solid concrete foundation built upon piling driven deep in the earth, and are housed in a great building of concrete, steel and brick construction.

Will This Project Be a Success?

This question is raised every time the subject is mentioned. Our answer is this: expert engineers have gone over every phase of the work and upon the strength of their reports hard-headed business men have invested over a half million dollars in the project. Hard-headed business men do not invest their money in propositions of this kind unless they are certain of success.

Projects of this kind are already in successful operation. The Haarlem Lake project in Holland was consid-

ered a more difficult proposition than this, and it has been in successful operation for years and now furnishes homes for sixteen thousand people.

Will the land in the lake bed produce crops? A test farm was operated in a part of the lake bed that had been diked off and pumped out, and while it was not expected to produce crops until it had been tilled three years, fair crops of corn, cotton and other crops have been produced the first year.

The progressive people of the district deserve the praise of all lovers of progress for the fight they have made for this great improvement. They have had to fight for it over every inch of the way. In bitterly contested election campaigns and hard fought law-suits they have shown the unflinching spirit of heroes, and we hope that they will soon reap the rewards of their long and trying fight. Fairfield, N. C.

PERSIMMON RECIPES.

Ways in Which It Is Neglected Fruit May Be Used.

The only fruit, says a new publication of the department, *Farmers' Bulletin No. 685*, which equals the persimmon in its value as a food is the date. Nevertheless many persons with fine persimmon trees in their possession are allowing the fruit to go to waste either through ignorance of the many uses to which it may be put or through prejudice. There is a saying in the persimmon country that persimmons are "good for dogs, hogs, and possums." This, however, is declared to be a gross injustice to a very valuable product.

One reason for the neglect of this fruit is the mistaken idea that persimmons are unfit to eat until they have been touched by frost. As a matter of fact much of the best fruit is lost each year because it ripens and falls to the ground, where, not being touched by frost, it is left to rot. Such persimmons as are not edible before frost comes are a late variety of the fruit, and the reason that they pucker the mouth is because they have not yet ripened. In general the best fruit ripens just before the leaves fall.

At the present time the most common use for the fruit in the persimmon belt, which extends from Maryland, Virginia, and the Carolinas westward through Missouri and Arkansas, is as food for hogs. It can, however, be made up into a large number of very palatable products for human consumption. To be on the safe side it is well to add a half teaspoonful of baking soda to each cupful of persimmon pulp whenever the fruit is subjected to heat. This does away with all risk of astringency, the quality in unripe persimmons which produces the well-known puckering of the mouth. If the fruit is perfectly ripe this precaution is not necessary, but as there is always the possibility of some green fruit finding its way into the pulp it is usually advisable.

The following recipes will be found simple and agreeable:

Persimmon Bread.

1 cup of persimmon pulp.
1 cup of water.
1-2 teaspoonful of soda.
Yeast.
Shortening.
Flour to make a stiff dough.
Set to rise, mold, and bake like other bread.

Persimmon Crumpets.

Take 1 pint of the sponge of persimmon bread which has been set over night, add 1 egg and enough milk to make a thin batter, set to rise for one hour, then bake on a hot griddle like giddlecakes. Serve hot with butter or syrup.

Persimmon Giddlecakes.

1 cup of persimmon pulp.
1 egg.
1 cup of flour.
1 teaspoonful of baking powder.
1-2 teaspoonful of soda.
Milk to make a thin batter.
Bake and serve as above.

Persimmon Cake.

1 cup of persimmon pulp.
1-2 cup of sugar.
1 egg.
1 cup of flour.
1 teaspoonful of baking powder.
1-2 teaspoonful of soda.
Butter of size of a walnut, Bake 40 minutes in a moderate oven. For a soft pudding leave out the eggs. For a custard leave out the flour and the baking powder.

Preserved Whole Persimmons.

Put a thin layer of sugar on the bottom of a jar; then a layer of whole ripe persimmons, then a layer of sugar, and so on until the jar is full. The sugar will soon dissolve and form a syrup. Press the upper fruit down under the syrup or add more syrup to the jars. Seal and store until used. The syrup may be drained off and the fruits served like dates, which they will resemble very much in both appearance and flavor.

Persimmon Ice Cream.

2 cups of persimmon pulp.
1 cup of thick, sweet cream.
Beat together thoroughly and freeze like ordinary ice cream. The fruit must be thoroughly ripe and nonastringent.

Persimmon Fudge.

2 cups of persimmon pulp.
2 cups of sugar.
Cook over a slow fire, stirring occasionally, until graining begins. Add 1 teaspoonful of baking soda and stir over the fire until quite stiff. Spread on buttered platter or paraffin paper.